

KISAN THAPA

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SUMMARY

PhD candidate in Computer Science with experience in software development, machine learning, and computational biology. Skilled in building scalable Android applications and designing deep learning models for graph-based data. Passionate about developing innovative tools that integrate biological datasets and cutting-edge technologies for real-world impact. Adept at designing machine learning pipelines, collaborating with cross-functional teams, and publishing high-impact research.

EDUCATION

University of Massachusetts Boston

Boston, MA

PhD in Computer Science

Sep 2021 - Ongoing

- Research Interests: Computational Biology, Deep Learning, Graph Neural Networks

Pokhara University

Pokhara, Nepal

Bachelor of Computer Engineering (GPA 3.8/4.0) - Dean's List 2017

Aug 2013 - Sep 2017

EMPLOYMENT

Graduate Teaching Assistant

Network Biology Lab, UMass Boston

Sep 2021 - Present

- Created a large-scale, web-based visualization tool for causal interaction networks, ensuring high responsiveness and efficient graph rendering
- Published frameworks on integrating prior biological networks into graph neural networks
- Developed a ranking-based transcription factor activity prediction method, boosting accuracy in complex datasets
- Gained expertise in deep learning, data analysis (Python, R), and web development (JavaScript, HTML/CSS)

Software Developer

EB Pearls Pvt. Ltd., Nepal

Aug 2020 - Aug 2021

- Built a high-impact crowdfunding Android application enabling secure mobile-to-mobile payments for 5,000+ beneficiaries
- Refactored Android legacy codebases to reduce technical debt and improve maintainability
- Improved Google Map SDK heatmap features, resulting in better performance for a large-scale local dating app
- Leveraged Knowledge in Java, Kotlin, Android SDK, JUnit, Espresso, DI, AWS S3, Firebase, C++, Google Map SDK.

Software Developer

Rooster Logic Pvt. Ltd., Nepal

Nov 2017 - June 2020

- Diagnosed and resolved 20+ issues in a local survey Android app, speeding up survey completion by over threefold
- Built an issue-tracking system using Android and Node.js for rainwater harvesting projects, cutting resolution time by 80%
- Leveraged Knowledge in Java, Android SDK, Node JS, JavaScript, Firebase, Unit Testing, Rest API.

PROJECTS

- Personal Website: <https://kisanthapa.github.io/>
- **CausalPath Web Server** (<https://causalpath.cs.umb.edu/>): Interactive visualization tool for causal interactions in biological network.
 - Replaced the Cytoscape.js library with the more efficient Newt library for visualizing biological networks
 - Utilized: JavaScript, HTML, CSS, Node JS, Git, Chrome Dev Tools.
- **Gene Mutation Classification Report** | [GitHub](#)
 - Developed a machine learning classifier using TCGA data to predict gene mutation status with 92% accuracy
 - Utilized: Python, Tensorflow, Jupyter Notebook, Numpy, Pandas, scikit-learn, Google Colab.
- **Firestore Chat Application** [GitHub](#)
 - Built a real-time Android chat system supporting one-to-one and group messaging
 - Utilized: Java, Gradle, Android, Firestore, Rest API, Kotlin, XML.

SKILLS

- Technical Proficiency: Python, Java, Kotlin, JavaScript, Git, Machine Learning, Deep Learning, Android Development, Node.js
- Familiar Technologies: React.js, C/C++, SQL, Pandas, NumPy, Django, TensorFlow, OpenCV, TypeScript
- Core Competencies: Research, Data Structures, Algorithmic Thinking, Software Testing, Team Collaboration, Problem-Solving